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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,321	01/04/2002	James R. Tranchina	8002A-48	4524

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EXAMINER

BUI, KIEU OANH T

ART UNIT	PAPER NUMBER
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2611

12

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,321

Applicant(s)

TRANCHINA ET AL.

Examiner

KIEU-OANH T BUI

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 23-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 23-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/15/04 has been entered.

Remarks

2. Claims 21-22 were canceled in the amendment dated 10/2/03 (paper no. 5). Pending claims are now claims 1-20, and 23-48.

Response to Arguments

3. Applicant's arguments with respect to claims 1-20, and 23-48 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 13-20, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckert et al. (U.S. Patent No. 5,794,164 or “Becker” hereinafter) in view of Malone et al. (U.S. Patent No. 6,663,155 B1).

Regarding claim 1, Beckert display a display device for a vehicle (Fig. 1, and col. 3/lines 20-32), comprising: at least one video signal source for outputting at least one video signal corresponding to at least one video program, i.e., a database or mass storage unit 506 serves as a source for providing at least one video program to viewers (Fig. 8/item 506, and col. 12/lines 52-59); two or more displays for receiving the at least one video signal and for simultaneously displaying the at least one video program, i.e., two or more displays are provided to viewers at display 54 for the driver and display 24 for each viewer in the back seat (as illustrated in Fig. 1, and col. 11/lines 40-65 as display 54 can display video; and Fig. 8, col. 13/lines 2-22 as each user can have his/her own display screen as the processing unit 512 including a visual screen); an assembly housing for enclosing at least a portion of said at least one video signal source and for supporting at least one of said two or more displays; and a bus for coupling said at least one of said two or more displays to said at least one media source when said at least one of said two or more displays is supported by said assembly housing, and wherein each of said two or more displays has a capability of operating while being remote from said assembly housing, i.e., a computer entertainment system 22 is enclosed in a housing 36 including other supporting components for operating the one or more displays, for instance, an operating system with open platform that can execute multiple applications and programs including multitasking functions for simultaneously executing multiple applications (Fig. 1, col. 3/line 65 to col. 4/line 46) using an internal bus 68 for supporting the interfacing among devices (Fig. 3, col. 5/line 60 to col. 6/line 2) as well as providing video output data to displays 54 and 24 (col. 5/lines 17-23).

Beckert further discloses “comprising a connector for electrically coupling said at least one of said two or more displays to said bus when said at least one of said two or more displays

is supported by said assembly housing” (Fig. 8 with a connector 510 for each user for having display and programs to each of them, col. 12/line 64 to col. 13/line 22, coupled to the system with a shared bus as shown (Fig. 3/item 68) and “wherein said connector is positioned integrated into a member for physically mounting said at least one of said two or more displays on said assembly housing”, i.e., connector ports 510 is positioned on a bus structure 508 for physically coupling the at least one of two or more displays 512 to the assembly housing computing unit 504 or ‘Server’ (Fig. 8, and col. 12/line 64 to col. 13/line 12).

Beckert does not further disclose that the connector port is physically mounting to the assembly housing and further “said member being disposed on and providing support for said at least one of said two or more displays” as pre-amended; however, in a same environment of providing entertainment services for passengers on a vehicle, Malone teaches that a video display can be removable (using the term “push-push mechanism” for physically mounting and removable function, col. 7/lines 24-60 & col. 9/lines 20-42, and col. 14/claim 5) and being disposed on (the assembly housing) and providing support for the at least one of the two or more displays (see Malone, Figs. 6-8, 10-11, 12, 15, 19, 21 for alternative arrangements of the video display disposed within the housing 10 with the support 62 (Fig. 9) or support 120 (Fig. 21), and col. 8/lines 50-60 for connecting cables). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Beckert’s connector port with some known features of connecting and supporting for the video display as taught by Malone in order to provide a convenience feature of removing the video display for storage and/or for carrying out with the user as suggested by Malone.

As for claim 2, in view of claim 1, Beckert further discloses “wherein the connector allows for selectively coupling and decoupling of said at least one of said two or more displays to and from said bus and said assembly housing”, i.e., as shown in Fig. 8, the user can either connect or disconnect to the connector ports 510 selectively from at least one of two or more

displays for enjoying different games or programs (col. 13/lines 5-22). Furthermore, Malone teaches the step of “said member allows for selective mounting and dismounting of said at least one of said two or more displays on and from said assembly housing” (Malone uses the term “push-push mechanism” for physically mounting and removable function, col. 7/lines 24-60 & col. 9/lines 20-42, and col. 14/claim 5 with the motivation as already discussed in claim 1 above).

As for claim 3, in view of claim 2, Malone further mentions “said member flexibly couples said at least one of said two or more displays to said assembly housing such that said at least one of said two or more displays folds against said assembly housing to protect the screen” (Malone, Figs. 3, 5, 11, 12, 18, and 20-21 shows a numerous ways that the user turns or flips the video display screen within and/or inside the assembly housing for protecting the screen).

As for claims 4 and 5, in view of claim 1, Beckert discloses “wherein said at least one media source is adapted to output at least two video signals corresponding to at least two video programs, and said two or more displays are adapted to receive the at least two video signals and to display the at least two video programs” and “wherein at least two of said two or more displays respectively and simultaneously display at least two different ones of the at least two video programs”, i.e., at least two different video programs are provided simultaneously to users (col. 3/lines 22-32 & col. 13/lines 13-22).

As for claim 6, in view of claim 4, Beckert discloses “wherein each of said two or more displays respectively and simultaneously display a same one of the at least two video programs”, i.e., a video program can be simultaneously displayed to two or more displays (col. 13/lines 5-12 and as an illustration in Fig. 8 as one video disk can provide the display simultaneously to all viewers).

As for claim 7, in further view of claim 1, Beckert inherently suggests “wherein said at least one media source comprises at least one of a television tuner, a video cassette player (VCP), a digital video disk (DVD) player, and a video game player” (col. 12/lines 13-40 for a variety of audio and video applications as well as video games).

As for claim 8, in view of claim 1, Beckert discloses “wherein said at least one media source comprises a receiver for receiving the at least one video signal from at least one external input device”, i.e., a port for receiving at least one video signal from an external input device (col. 6/lines 32-38) and other additional peripherals (col. 9/lines 55-62).

As for claim 13, in view of claim 1, Beckert inherently discloses “wherein at least one of said two or more displays employs at least one of a liquid crystal display (LCD) technology, light emitting diodes (LEDs), and a gas plasma”, i.e., a LCD display is addressed (col. 4/lines 56-58).

As for claim 14, in view of claim 1, Beckert further discloses “wherein at least one of said two or more displays comprises a mounting device for mounting at a rear portion of a seat, independent of a location of the assembly housing”, i.e., display screen 24 is mounting at a rear portion of a seat independent with the main assembly housing 46 (as shown in Fig. 1).

As for claim 15, in view of claim 1, Beckert discloses “wherein each of said two or more displays comprises at least one speaker for reproducing audio signals corresponding to the at least one video program” (Fig. 1/items 30 for speakers).

As for claim 16, in view of claim 1, Beckert discloses “wherein each of said two or more displays comprises at least one input jack for receiving audio or video signals” (col. 6/lines 32-38 & col. 9/lines 55-62).

As for claim 17, in view of claim 4, Beckert does not discloses “wherein each of said two or more displays comprises a multiplexer for selecting one of the at least two video programs”; however, Beckert suggests that the computing unit 504 is capable of selecting appropriate video

programs for users (col. 13/lines 13-22). Therefore, it would have been obvious to realize that one of ordinary skill in the art can modify Beckert's system with a multiplexer in order to further provide a function for selecting one of the at least two video programs based on the suggesting step of Beckert's as disclosed.

As for claim 18, in view of claim 1, Beckert discloses "wherein each of said two or more displays comprises a power supply jack for receiving power from an external power supply", i.e., either an external power supply from a car battery is shown (Fig. 1/item 32) or from a cellular power pack with a power port for external power source (col. 7/lines 9-14).

As for claim 19, in view of claim 1, Berkert further discloses "wherein the vehicle includes at least one seat, and said assembly housing mounts at a rear portion of the at least one seat" (Fig. 1/item 24 for a rear seat passenger).

As for claim 20, in view of claim 1, Beckert further discloses "further comprising at least one speaker, disposed within the assembly housing, for reproducing audio signals corresponding to the at least one video program" (Fig. 3/item 90 or Fig. 5/item 90 for speaker providing audio signals & col. 11/lines 40-49 for both video and audio is provided for a program).

(Claims 21-22 were canceled).

As for claims 23 and 24, in view of claim 1, Beckert further discloses "comprising signal processing facilities adapted to perform at least one of signal processing and signal conversion, with respect to the at least one video signal" and "wherein said signal processing facilities are adapted to perform at least one of digital signal processing, encoding, decoding, encrypting, decrypting, compressing, decompressing, analog-to-digital conversion (ADC), digital-to-analog conversion (DAC), and error correction" (Figs. 5 and 7, a digital signal processor DSP 80 handles signal processing and signal conversion as well as A/D and D/A conversion (Fig. 7/item 432), encoding and decoding (col. 7/line 60 to col. 8/line 6), security, and error correction or diagnostics (col. 12/lines 14-40).

6. Claims 9-12, and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckert et al. (U.S. Patent No. 5,794,164) in view of Malone as in claim 1 above and further in view of Chan et al. (US Patent 6,339,696 B1/ or "Chan").

As for claims 9 and 11, in view of claim 1, Beckert discloses "wherein said at least one media source outputs at least one audio signal corresponding to the at least one video program", i.e., both video and audio signals/programs to users (col. 11/lines 40-49), yet Beckert does not further addresses that "said display device further comprises at least one wireless transmitter operatively coupled to said at least one media source for wirelessly transmitting the at least one audio signal to at least one wireless headphone set, and each of said two or more displays comprise a wireless receiver for wirelessly receiving the at least one audio signal"; however, Chan further teaches that the portable video device (as illustrated in Figs. 6 & 8) further including a wireless transmitter 204 for transmitting wirelessly at least one audio signal (col. 9/lines 14-38) to at least one wireless headphone set (as shown in Fig. 2, and col. 5/lines 55-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Beckert's system with Chan's teaching technique of further including a wireless transmitter at the video device for wirelessly transmitting audio signals to a wireless headphone set in order to provide the user his own personal enjoy in listening music as well as for his own selection in tuning channels as taught by Chan (col. 3/lines 17-34).

As for claims 10 and 12, in view of claim 9, Beckert and Chan further teaches "wherein the at least one audio signal is wirelessly transmitted as a radio frequency signal or an infrared signal", i.e., infrared is addressed (Beckert, col. 4/line 67 to col. 5/line 5) and radio frequency signal is used with a communication antenna (Chan, Fig. 1, and col. 23-64).

As for claims 47-48, these claims are combined limitations of claims 1 and 11 for a wireless transmitter are rejected for the same reasons as discussed earlier in view of Beckert, Malone and Chan.

7. Claims 25-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckert et al. (U.S. Patent No. 5,794,164) in view of Malone et al (US Patent 6,663,155 B1) and Lee (US Patent 6,283,299 B1).

Regarding claim 25, Beckert discloses “a display device for a vehicle having a seat, comprising: at least one media source for outputting at least one video signal corresponding to at least one video program; two or more displays for respectively receiving the at least one video signal and for respectively and simultaneously displaying the at least one video program; an assembly housing for enclosing at least a portion of said at least one media source and for supporting at least one of said two or more displays” (see claim 1 above). Beckert further discloses “an electrical connector for electrically coupling said at least one of said two or more displays to said bus, wherein said electrical connector is integrated into said member” (see Fig. 8).

Beckert does not further disclose that “a member disposed on said at least one of said two or more displays for mounting said at least one of said two or more displays on said assembly housing” as pre-amended; however, in a same environment of providing entertainment services for passengers on a vehicle, Malone teaches that a video display can be removable (using the term “push-push mechanism” for physically mounting and removable function, col. 7/lines 24-60 & col. 9/lines 20-42, and col. 14/claim 5) and being disposed on (the assembly housing) and providing support for the at least one of the two or more displays (see Malone, Figs. 6-8, 10-11, 12, 15, 19, 21 for alternative arrangements of the video display disposed within the housing 10 with the support 62 (Fig. 9) or support 120 (Fig. 21), and col. 8/lines 50-60 for connecting cables). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Beckert's connector port with some known features of connecting and supporting for the video display as taught by Malone in order to provide a convenience feature of removing the video display for storage and/or for carrying out with the user as suggested by Malone.

Beckert and Malone do not further addresses the steps of including "a bag for receiving said assembly housing and suspending said assembly housing at a rear of the seat when said assembly housing is in any one of an operational mode and a nonoperational mode; and a bus for coupling said at least one of said two or more displays to said at least one media source when said at least one of said two or more displays is supported by said assembly housing, and wherein each of said two or more displays has a capability of operating while being remote from said assembly housing and irrespective of whether said assembly housing is received and suspended by said bag"; however, Lee already teaches a technique of introducing a portable bag for carrying TV and video media player with an LCD screen for use within a vehicle (see Figs. 1, 3, 5 & 6, and col. 2/line 55 to col. 3/line 39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Beckert's in-vehicle video and audio system with Lee's teaching technique of having a carrying bag for holding the video/audio device and for suspending it at a rear of the seat (as taught by Lee) with a bus for coupling to at least one of the two or more displays for remotely operating the device as disclosed by Beckert, i.e., an operating system with open platform that can execute multiple applications and programs including multitasking functions for simultaneously executing multiple applications (Fig. 1, col. 3/line 65 to col. 4/line 46) using an internal bus 68 for supporting the interfacing among devices (Fig. 3, col. 5/line 60 to col. 6/line 2) as well as providing video output data to displays 54 and 24 (Beckert, Fig. 1, and col. 5/lines 17-23).

As for claims 26, in view of claim 25, Lee further teaches “wherein said bag comprises a mounting mechanism for suspending said assembly housing to the rear of the seat”, i.e., two straps 26 can be used for suspending the bag to the rear of the seat (Lee, Fig. 6 & 7).

As for claims 27 and 28, in view of claim 25, Lee further teaches “wherein said bag comprises at least a main compartment for at least partially encasing at least said assembly housing” and “wherein the main compartment partially encases said assembly housing irrespective of whether at least one of said two or more displays is supported by said assembly housing” (Fig. 3 shows a main compartment for encasing at least its assembly housing with a display is outside of the main compartment).

As for claim 29, in view of claim 25, Lee further teaches “wherein said bag comprises at least one compartment for encasing at least one of said two or more displays, when said at least one of said two or more displays is remote from said assembly housing”, i.e., the LCD TV can be placed in the bag (Fig. 7, and col. 3/lines 5-9).

As for claim 30, in view of claim 25, Lee further teaches “wherein said bag comprises at least one compartment for encasing accessories corresponding to the display device” (col. 3/lines 9-15).

As for claim 31, in view of claim 25, Lee teaches “wherein said bag comprises a flap, disposed at a top face of the bag, for providing unrestricted viewing access to a given one of said two or more displays when said assembly housing is received and suspended by said bag and said given one of said two or more displays is supported by said assembly housing” (as shown in Figs. 2 & 7 for flaps on top for providing access to the pocket storing the LCD TV display and the assembly housing and the housing is supporting the LCD display as in Figs. 1 & 2).

As for claim 32, in view of claim 31, Lee further teaches “wherein the flap further provides access for loading at least a video medium into said at least one media source” (as shown in Fig. 3 as one can load a video medium as a video tape into the assembly housing).

As for claims 33-37, 39, and 41-43, these claims are rejected for the reasons given in the scope of claims 25-32 as disclosed in details above.

As for claims 38 and 44, in further view of claim 33, Malone further addresses “comprising a wireless transmitter for wirelessly transmitting the video signal, and wherein said display comprises a wireless receiver for wirelessly receiving the video signal” and “further comprising a wireless transmitter for wirelessly transmitting the at least two video signals, and wherein each of said at least two displays comprises a wireless receiver for wirelessly receiving the at least two video signals” (Malone, Fig. 22, col. 9/line 59 to col. 10/line 15).

As for claims 40 and 45, in further view of claims 39 and 42 respectively, Beckert and Lee do not mention “wherein said display comprises a multiplexer for selecting one of the at least two video programs for display” and “wherein each of said at least two displays comprises a multiplexer for selecting one of the at least two video programs for display”; however, Beckert suggests that the computing unit 504 is capable of selecting appropriate video programs for users (col. 13/lines 13-22). Therefore, it would have been obvious to realize that one of ordinary skill in the art can modify Beckert’s system with a multiplexer in order to further provide a function for selecting one of the at least two video programs based on the suggesting step of Beckert’s as disclosed.

As for claim 46, this limitation is met as Beckert and Malone discloses a connecting member (port) allows for selective coupling and decoupling of at least one of the two or more displays to and from the bus and the assembly housing (see claims 1-2 above, with the teaching of Malone as discussed for coupling and decoupling the electrical connection of the video display and the support member).

Conclusion

8. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (703) 305-0095. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Krista Bui
Art Unit 2611
June 24, 2004


KRISTA BUI
PATENT EXAMINER